

Remarks

The application originally contained Claims 1-5. The First Amendment made no changes to the claims. In the Second Amendment, Claims 1-2 were canceled, Claims 3-5 remained as originally submitted, and Claims 6-22 were added. The Third Amendment canceled Claims 1-11, 17-18, and 20-22, amended Claims 12 and 14, and presented Claims 13, 15, 16 and 19 as previously added, leaving Claims 12-16 and 19 for further consideration. In this Fourth Amendment, Claim 15 has been amended, while Claims 12-14, 16 and 19 remain as previously amended or added. Thus Claims 12-16 and 19 are presented for further consideration.

Prosecution History

The application was originally filed with Claims 1-5. In the First Office Action dated 9/11/02, all of the claims were rejected under 35 U.S.C. §103(a) as unpatentable over various combinations of U. S. Patent 5,025,490 to issued to Tamura, U. S. Patent 5,993,996 issued to Firsich, and U. S. Patent 4,442,165 issued to Gebhardt et al. (hereinafter referred to as *Gebhardt*). The Examiner also objected to an informal error in the specification. On 12/16/02, the applicants submitted a responsive First Amendment amending the specification and traversing the foregoing rejection of the claims.

In view of the applicants' traverse, on 3/11/03 the Examiner issued a non-final Second Office Action rejecting Claims 4 and 5 under 35 U.S.C. §112, second paragraph, as being indefinite for reciting a limitation having an insufficient antecedent basis; rejecting Claims 1 and 2 under 35 U.S.C. §102(b) as being anticipated by U. S. Patent No. 4,137,477 issued to Krol et al. (hereinafter referred to as "Krol"); and rejecting Claims 3-5 under 35 U.S.C. §103(a) as unpatentable over *Krol* in view of *Gebhardt*.

On 7/23/03, the applicants submitted a responsive Second Amendment canceling Claims 1 and 2, traversing the foregoing rejections pertaining to Claims 3-5,

and adding Claims 6-22. In response, on 10/21/03, a Final (Third) Office Action rejected all pending claims, i.e., Claims 3-22. More particularly, Claims 4 and 5 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claims 6, 7 and 10 were rejected under 35 U.S.C. §102(b) as being anticipated by *Krol*; Claim 8 was rejected under 35 U.S.C. §103(a) as being obvious in view of *Krol*; and Claims 3-5, 9, and 11-22 were rejected under 35 U.S.C. §103(a) as being obvious over *Krol* in view of U.S. Patent No. 4,034,031 issued to Lersmacher et al. (hereinafter referred to as "*Lersmacher*").

On 12/20/03, the applicants' attorney facsimile transmitted an After Final (Third) Amendment to the Patent and Trademark Office. The After Final Amendment canceled Claims 1-11, 17-18, and 20-22; amended Claims 12 and 14, and kept Claims 13, 15, 16 and 19 as previously added. In a responsive, non-final Fourth Office Action mailed on 7/13/04, the Examiner entered the After Final Amendment and noted that the foregoing After Final Amendment was filed with the Patent and Trademark Office on 6/7/04. The Fourth Office Action proceeded to reject all of the pending claims, i.e., Claims 12-16 and 19, under 35 U.S.C. §103(a) as unpatentable over *Krol* in view of *Lersmacher* and German Patent Specification No. 1,667,650.

The Rejection of Claims 12 and 13

On 8/3/04, a personal interview was held on the premises of the Patent and Trademark Office between the attorney for the applicants, the Examiner, and the Supervisory Examiner, Ms. Mariceli Santiago. The applicants' attorney wishes to cordially thank both of the aforementioned participants for their time in preparing for and participating in the interview.

As noted by the applicants' attorney during the course of the discussion, the subject application and the cited references both teach applying a resin coating to an anode, carbonizing the resin coating, and then applying a coating of pyrocarbon to the carbonized resin. However, Claim 12 goes on to recite, "removing any residual water from the pyrocarbon coating" as the last step in the sequence of steps recited therein;

and depending Claim 13 further defines the removing water step to include "heating the anode."

While *Krol* discloses, "baking the electrode in a vacuum up to 1600°C to remove any remaining impurities," (col. 5, lines 56-57; and also referenced at page 3, lines 1-2 of the Fourth Office Action), this step is performed as part of the carbonization process, and thus must occur before the deposition of the coating of pyrocarbon. That is, the coating of pyrocarbon is applied after the carbonization process and thus *Krol*'s step of baking the electrode necessarily occurs before the pyrocarbon is applied. This is in contradistinction to the step of removing residual water in recited in Claim 12, which occurs after the coating of pyrocarbon has been formed. This is because the applicants' cited step is for removing residual water from the pyrocarbon coating.

The Examiner agreed that *Krol* and *Lersmacher* do not teach the last step of "removing any residual water from the pyrocarbon coating" (Claim 12) by "heating the anode" (depending Claim 13). The Supervisory Examiner suggested that the Examiner obtain a complete English translation of the German patent, and furthermore that the Examiner conduct a prior art search for the specific teachings of the last step of Claim 12 and that of Claim 13, after receiving an official response to the Fourth Office Action of 7/13/04. This amendment comprises the aforementioned official response.

Depending Claims 14-16 and 19

Claim 14 remains as previously amended, and depends from independent Claim 12. Claim 15 has been amended so that it also depends from Claim 12. Claim 16 remains as previously added, and depends from Claim 15. Claim 19 remains as previously added, and depends from Claim 14. All of the foregoing depending claims more particularly define the present invention, and the applicants contend that they are thus allowable for the reasons set forth in the previous discussion of Claims 12 and 13.

Conclusion

In view of the foregoing remarks, the applicants submit that Claims 12-16 and 19 are presently in allowable form. Accordingly, the applicants earnestly solicit the favorable consideration of their application, and respectfully request that it be passed to issuance in its present condition.

Should the Examiner discern any remaining impediment to the prompt allowance of the aforementioned claims that might be resolved or overcome with the aid of a telephone conference, she is cordially invited to call the undersigned at the telephone number set out below.

Respectfully submitted,



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